



USER'S MANUAL

Performance TX635 / TX640B User's Manual

At Antec, we continually refine and improve our products to ensure the highest quality. So it's possible that your new case may differ slightly from the descriptions in this manual. This isn't a problem; it's simply an improvement. As of the date of publication, all features, descriptions, and illustrations in this manual are correct.

Disclaimer

This manual is intended only as a guide for Antec's Computer Enclosures. For more comprehensive instructions on installing your motherboard and peripherals, please refer to the user's manuals which come with your components and drives.

TX635/TX640B – MINI TOWER CASE

This case is designed to meet Intel's Thermally Advantaged Chassis (TAC) design guide requirements. Your new case features a quiet ATX12V version 2.0 compliant SmartPower 2.0 (SP) power supply, with a main power switch. Make sure you turn the switch to the ON (I) position before you boot up your computer for the first time. Normally, you won't need to switch to the OFF (O) position, since the power supply includes a soft on/off feature. Which lets you turn your computer on and off by using the soft switch on your computer case. If your computer crashes and you can't shut it down using the soft switch, you can switch the main power to the OFF (O) position to clear the fault, then reboot.

[Applies only to models designed for sale in the European Union:

SmartPower 2.0 series power supply models designed for the EU include Power Factor Correction (PFC) circuitry in accordance with European standard regulation code EN61000-3-2. By altering the input current wave shape, PFC improves the power factor of the power supply. This results in increased energy efficiency, reduced heat loss, prolonged life for power distribution and consumption equipment, and improved output voltage stability.]

SETTING UP

1. Place the case upright on a flat, stable surface. The power supply fan should be at the back, facing you.
2. **Note (not applicable to models designed for the European Union):** Before installation, check the red voltage switch setting on the power supply. It should match your local voltage (115V for North America, Japan, etc. and 230V for Europe and many other countries). If it doesn't match, please change the setting. If you don't you could damage your equipment and void your warranty.
3. Remove the thumbscrews from the right side panel. Unlatch the panel and remove it by swinging it out. **Note:** Don't use your fingernail to pry or lift the panels.
4. Inside the case you should see the power supply, some wiring with marked connectors (USB, PWR etc.), and installed I/O panel, a power cord and a plastic bag containing more hardware (screws, brass standoffs, plastic stands, etc.), and six drive rails.

INSTALLING THE MOTHERBOARD

This manual does not cover CPU, RAM, or expansion card installation. Please consult your motherboard manual for specific mounting instructions and troubleshooting.

1. Lay the case down, with the open side facing up. The drive cages and power supply should be visible.
2. Make sure you have the correct I/O panel for your motherboard. If the panel provided with the case isn't suitable, please contact your motherboard manufacturer for the correct I/O panel.

3. Line up your motherboard with the standoff holes, and remember which holes are lined up. Not all motherboards will match with all the provided holes; this is normal, and won't affect functionally. (In other words, there will likely be extra holes.)
4. Remove your motherboard by lifting it up.
5. Screw the brass standoffs into the threaded holes that line up with your motherboard. Do not overtighten the standoffs. Some standoffs may be pre-installed for your convenience.
6. Place your motherboard on the brass standoffs.
7. Screw in your motherboard to the standoffs with the provided Philips-head screws. Your motherboard is now installed.

CONNECTING THE POWER AND LED

The power supply conforms to the latest ATX12V Version 2.0 standard. It is also backwards-compatible with previous ATX form factor power supplies. Before you connect the power supply to any of your devices, please consult the appropriate user manuals for your motherboard and other peripherals.

The power supply is also equipped with a 3-pin fan signal connector. Connect it to one of the fan connectors on your motherboard. You may monitor the speed of the rear power supply fan through your motherboard BIOS or through the monitoring software that's supplied with your motherboard. Note: At low temperatures, the fan may run as slow as 950RPM. At these speeds, some motherboards may not properly detect the fan speed and may generate false warnings of fan failure. To ensure proper monitoring of the fan, please check your motherboard manual.

1. Connect the Main Power Connector and the 4-pin +12V connector to your motherboard as needed. If your motherboard uses a 20-pin connector; detach the 4-pin attachment on the 24-pin power connector (see pictures 1 and 2).
2. Connect the Reset switch (labeled RESET SW) to your motherboard at the RST connector. Make sure the label always faces the front of the case.
3. Power LED (labeled POWER LED) connector is located behind the Reset connector.
4. Power Switch (labeled POWER SW) connects to the PWR connector on the motherboard.
5. Speaker (labeled SPEAKER) connector is behind the PWR connector.
6. Hard Drive LED (labeled H.D.D. LED) connects to the IDE connector.
7. LED I, LED II connectors: This case comes with two extra LEDs, marked LED I, LED II. You may use these LED for various purchases such as SCSI LED, Message LED, etc.

Picture 1



For 24-pin motherboards

Picture 2



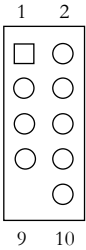
For 20-pin motherboards

CONNECTING THE USB PORTS

You will find a single 10-pin connector on a cable attached to the front USB ports. This is an Intel standard connector, which is keyed so that it can't be accidentally, reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard headers so that the blocked pin fits over the missing header pin.

Note: Please check your motherboard manual for your USB header pin layout and make sure it matches the attached table. If it does not match this Intel standard, please call Antec customer service at (800) 22ANTEC (North America) or +31 (0) 10 462-2060 (Europe) to buy a USB adapter. This adapter will allow you to connect the front USB to your motherboard on a pin-by-pin basis.

Motherboard Pin Layout



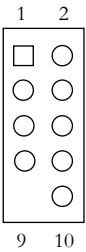
Pin	Signal Names	Pin	Signal Names
1	USB Power 1	2	USB Power 2
3	Negative Signal 1	4	Negative Signal 2
5	Positive Signal 1	6	Positive Signal 2
7	Ground 1	8	Ground 2
9	Key (No Pin)	10	Empty Pin

CONNECTING THE IEEE 1394 (FIREWIRE®, i.LINK®) PORT

You will find a single 10-pin connector on a cable attached to the front IEEE 1394 connection. This is an Intel standard connector, which is keyed so that it can't be accidentally reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard header so that the blocked pin fits over the missing header pin.

Note: Please check your motherboard manual for your IEEE 1394 header pin layout and make sure it matches the attached table. If you intend to connect the front FireWire port to an IEEE 1394 add-on card that comes with an external-type IEEE1394 connector, please call Antec customer service at (800) 22ANTEC (North America) or +31 (0) 10 462-2060 (Europe) to buy an adapter. This adapter will allow you to connect the front IEEE 1394 port to the external-type connector..

Pin Assignment for Front Panel IEEE 1394 Connector



Pin	Signal Names	Pin	Signal Names
1	TPA+	2	TPA-
3	Ground	4	Ground
5	TPB+	6	TPB-
7	+12V	8	+12V
9	Key (No Pin)	10	Ground

CONNECTING THE AUDIO PORTS

There is an Intel standard 10-pin connector (with 7 individual wires with connectors) coming out from the front panel speaker and microphone connection. If your motherboard supports Intel's standard onboard audio connector, you can plug in the 10-pin connector directly onto the board. For non-Intel standard audio connection, you need to plug the 7 individual connectors to the motherboard. See instruction below:

Locate the internal audio connectors from your motherboard or sound card. Consult your motherboard or sound card manual for the pin-out positions.

1. Microphone Signal Pin: Connect the MIC connector to this pin.
2. Microphone Power: Connect the MIC-BIAS connector to this pin.
3. Ground Pin: Connect the AUD GND connector to this pin.
4. Front Right Speaker Out Pin: Connect the FPOUT-R connector to this pin.
5. Front Right Speaker Out Pin: Connect the FPOUT-L connector to this pin.

6. Rear Right Speaker Out Pin: Connect the RE'T-R connector to this pin.
7. Rear Left Speaker Out Pin: Connect RE'T-L connector to this pin.

3.5" DEVICE INSTALLATION

With the front bezel facing you, swing the front door out. You can see there are three 5.25" and two 3.5" external drive bays. Inside the case there are four 3.5" drive cages.

1. On the sides of the front bezel there are two tabs. Press the tabs to remove the top half of the bezel.
2. Unscrew the two thumbscrews located on the drive bay assembly and slide it out.
3. Install your floppy drive into the bottom drive bay. Mount another 3.5" device into the top drive bay if applicable.
4. Slide the whole assembly back into the case and fasten it with the thumbscrews. Inside the case, there is a 3.5" drive cage. It can hold three 3.5" devices.
5. Pull the quick release lever towards the rear of the case to release the cage. Put the cage on a flat surface. **Note:** If you want to have a cooling fan in the drive cage, you should install the fan before installing the drives.
6. Mount your other 3.5" devices into the drive cage.
7. Slide and lock the drive cage back into the case.
8. Find a small 4-pin connector on the power supply and connect it to the male 4-pin connector on the floppy drive.
9. Connect a large 4-pin connector from the power supply to the male 4-pin connector on each of the other devices.

5.25" DEVICE INSTALLATION

1. There are metal plates covering the 5.25" drive bays.
2. Carefully twist the metal plate back and forth until it breaks off.
Note: Don't break off plates covering drive bays that you are not going to use. Be careful of the newly exposed metal where the plates were attached as these areas are likely to be sharp.
3. Take two drive rails and mount them to the sides of the 5.25" device.
Make sure the metal portion is angled away from the device and facing forward.
4. Slide the device into the drive bay until you hear a click.
5. Mount the other devices accordingly.
6. Connect a large 4-pin connector from the power supply to the male 4-pin connector on each of the devices. After you have finished the installation, carefully use your thumbs to push the plastic drive bay covers off the bezel and attach the bezel back into the case. Like the metal plates, take off only the covers for the drive bays you are using now.

COOLING SYSTEM

The TriCool fan

The case includes one 120mm TriCool fan installed in the rear. This fan has a three-speed switch that lets you choose between quiet, performance, or maximum cooling.

(See specifications below.) The fan is installed so that the air is blowing out of the case. Connect a large 4-pin connector from the power supply to the male 4-pin connector on the fan.

Note: The minimum voltage to start the fan is 5V. We recommend our users to set the fan speed to High if you choose to connect the fan to a fan control device or to the Fan-Only connector found on some Antec power supplies. A fan-controlled-device regulates the fan speed by varying the voltage to it. The voltage may start as low as 4.5 V to 5V. Connecting a TriCool set on Medium or Low to a fan-control device may result in the fan not being able to start. The already lowered voltage from the fan control device will be further reduced by the TriCool circuitry below 5V.

Specifications:

Size: 120 x 120 x 25.4 mm

Rated Voltage: DC 12V

Speed	Input Current	Air Flow	Static Pressure	Acoustical Noise	Input Power
High 2000 RPM	0.24A (Max.)	2.24 m ³ /min. (79 CFM)	2.54 mm-H ₂ O (0.10 inch-H ₂ O)	30 dBA	2.9 W
Medium 1600 RPM	0.2A	1.59 m ³ /min. (56 CFM)	1.53 mm-H ₂ O (0.06 inch-H ₂ O)	28 dBA	2.4 W
Low 1200 RPM	0.13A	1.1 m ³ /min. (39 CFM)	0.92 mm-H ₂ O (0.04 inch-H ₂ O)	25 dBA	1.6 W

This case comes with two 80mm front fan mounts, one 80mm side panel fan mount for the VGA card and one 92mm fan mount in the lower chassis air guide for CPU. These are optional fan locations, to install fans please read the following directions.

Front 80mm fan mounts

One plastic fan cage is located inside the 3.5" drive cage to cool your hard drives directly. You should install this fan before you mount your HDD drives into the cage. The 2nd plastic fan cage is located underneath the internal 3.5" drive cage. Install both fans by dropping the fan into the cage and pushing it until it snaps in. These fans must be installed so that the air is blowing into the case. Connect a large 4-pin connector from the power supply to the male 4-pin connector on each of the fans. We recommend using an Antec 80mm TriCool fans to balance quiet performance with maximum cooling. **Note:** Please choose your fan speed wisely. In most cases, a medium or even low speed setting will be enough to supply adequate cooling.

VGA Card Cooling

There is an 80mm fan mount with vents on the side panel right above the VGA card. The vents can supply fresh air to the card without a fan (passive cooling), or with a fan (active cooling) if you are using a high performance VGA card that needs extra cooling. Install the fan so that the air is blowing into the case. We recommend using an Antec 80mm TriCool fan.

CPU Cooling – Chassis Air Guide

Your case includes a special chassis air guide and vents for improved cooling of your CPU. The air guide consists of two parts: an upper duct with flange and a lower duct with a 92mm fan hood. The air guide is designed to work with different CPU configurations.

Air Guide Adjustment

There is a vent section on the side corresponding to the CPU area. The air guide comes pre-installed according to Intel's recommended CPU location. However since not all motherboards follow the exact recommendation, you may need to adjust the air guide to match your CPU position.

Normal Mode

1. Remove the four mounting screws that fasten the upper air guide flange to the side panel.
2. Move the upper guide flange within the square vents area so that the lower duct hood will cover the entire CPU cooler.
3. Fasten the upper air guide to the side panel once you have aligned the hood with the CPU.
4. Loosen the thumb-screw that fastens the lower air guide to the upper air guide and lower the fan duct down to the CPU

Note: Lower the guide down as low as possible without touching the CPU cooler. This is the most common way to cool a CPU that comes with a stock cooler.

Performance Mode

If you are a high performance user and you need extra cooling for your CPU.

1. Remove the side panel from the case.
2. Install a 92 mm fan to the fan hood so that the air is blowing down on the CPU cooler.
3. Lower the lower air guide with fan down to the CPU cooler. This will bring more cool air to the CPU cooler and enhance CPU cooling efficiency.
4. Connect the fan to the power supply or to the motherboard fan connector as instructed by the manufacturer.

Note: We recommend lowering the air guide down so the separation distance between the 92mm fan and the CPU cooler to 20mm to get the best cooling effect.

Quiet Mode

If you are a quiet computing user and you prefer to install a passive CPU cooler (heat sink without a fan) to get the most possible quiet operation.

1. Install a 92mm fan to the lower air guide as instructed above.
2. Lower the lower air guide down as low as possible without touching the passive heat sink.

Note: Please consult the manufacturer's recommendation for the minimum airflow to work with the passive heat sink. You may be able to lower the fan speed beyond the manufacturer's recommendation, as the air guide will supply fresh cool air to the heat sink directly. This will reduce the fan noise even further.

Maintaining the Washable Air Filter

From time to time it will be necessary to wash the installed air filter. Not washing the air filter will result in higher system temperatures and possible stability problems. We recommend checking the air filter at least once a month initially. The frequency will change depending on system usage (users whose systems run 24/7 will likely have to check/wash more often than those who don't use their systems every day) and on environmental conditions.

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